

**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Ronald Citkowski on 10/1/10.

2. The application has been amended as follows:

In claim 22, line 13, after "microcrystalline" insert --and is deposited under a set of deposition parameters which are near, but above, the amorphous/microcrystalline threshold,--.

In claim 22, line 19, after "substrate" insert: --so as to maintain said set of deposition parameters near, but above said amorphous/microcrystalline threshold and thereby advantageously control the morphology of the microcrystalline material"--.

***Allowable Subject Matter***

3. Claims 2-14 and 22 are allowed.
4. The following is an examiner's statement of reasons for allowance:

The prior art of record and to the examiner's knowledge does not teach or render obvious, at least to the skilled artisan, the instant invention regarding a method for plasma deposition of a layer of a microcrystalline semiconductor material, comprising:

depositing a layer of the semiconductor material onto a substrate; controlling at least one deposition parameter of the deposition process so as the layer of semiconductor material is

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deposited in the deposition process is crystalline and is deposited under a set of deposition parameters which are near, but above, the amorphous/microcrystalline threshold; and varying the concentration of the diluent in the process gas as a function of the thickness of the layer of microcrystalline semiconductor material which has been deposited onto the substrate so as to maintain the set of deposition parameters near, but above the amorphous/crystalline threshold and thereby advantageously control the morphology of the microcrystalline material, as recited in independent claim 22. Claims 2-14 are dependent upon independent claim 22.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Y. Tran whose telephone number is (571) 272-2110. The examiner can normally be reached on M-F (9-6:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thao X. Le, can be reached on (571) 272-1708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/T. Y. T./

Examiner, Art Unit 2892

/Thao X Le/

Supervisory Patent Examiner, Art Unit 2892